

NEW DESCRIPTIONS

BARILIUS NELSONI, A NEW CYPRINID FISH (PISCES : CYPRINIDAE) FROM TRIPURA, NORTH-EASTERN INDIA¹

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(With a text-figure)

A new freshwater fish of the genus *Barilius* Hamilton collected from Tripura, North-eastern India is described and illustrated under the name *Barilius nelsoni*. The new species is similar to *Barilius evezardi* Day and *Barilius radiolatus* Gunther but can be easily separated from the former by the presence of barbels and in having the dorsal fin exactly midway between the hind margin of the orbit and base of caudal fin. The new species differs from the latter species in having fewer lateral line, predorsal and circumpeduncular scales.

INTRODUCTION

The fishes of the cyprinid genus *Barilius* Hamilton are conspicuous in the fauna of the Indian subcontinent, Thailand, China and Africa. These fishes are, for the most part, inhabitants of hill or mountain streams, although some species live in low-land waters. Usually these fishes have dark spots or bands on a silvery body. Day (1889) recorded 14 species and Jayaram (1981) enumerated 16 species under the genus *Barilius* from the Indian subcontinent. Recently, Barman (1985, 1986) discovered two new species of this genus from Arunachal Pradesh (28°N, 95°E) and West Bengal (23°N, 87°E). Howes (1980) made a very valuable contribution to the anatomy, phylogeny and classification of barilline cyprinid fishes.

During the taxonomic studies on the fishes of Tripura, nine specimens of a species were referable to this genus which, when compared with the known species of the genus *Barilius*, appeared to represent a hitherto undescribed species. The present species is being described as *Barilius nelsoni*. In the species descriptions, the mean and, in parentheses, range are given for proportions of body parts to either head length or standard length.

Barilius nelsoni sp. nov.

Material: Holotype (Fig.1): 62 mm. SL. Regd. No., FF2396 Zoological Survey of India,

Calcutta Locality: Gumti River, Udaypur subdivision, South Tripura district, North-eastern India. Collector : R.P. Barman and party. Date of collection : 15-8-1985.

Paratypes: 8 examples, 42-55 mm. SL. Regd. No. FF2397 ZSI, Calcutta. Locality, collector and date of collection same as in holotype.

DIAGNOSIS

Dorsal fin origin exactly midway between the hind edge of the orbit and caudal base. Head length 4.54-4.76 and body depth 4.33- 4.58 in standard length. Eye diameter 3.25-3.66 in head length. Least depth of caudal peduncle 1.66-1.85 in its length. Lateral line scales 38-39, predorsal scales 14-16 and circumpeduncular scales 12-14. Barbels 2 pairs. Body with a darkish longitudinal band on its lateral sides.

DESCRIPTION

Head length 4.65 (4.54-4.76) at the most distant point on the opercular membrane, body depth at pelvic origin 4.46 (4.33-4.58), predorsal distance 1.76 (1.73-1.78), prepelvic distance 2.18 (2.16-2.21), preanal distance 1.55 (1.52-1.57) and length of the longest ray of the caudal fin from base 4.28 (4.00-4.76) in standard length. Depth of head 1.28 (1.22-1.33) at the occiput and width of head 2.10 (2.00-2.20) in head length. Eye diameter 3.49 (3.25-3.66) in head length, 1.18 (1.12-1.33) in interorbital width. Snout length 3.75 (3.66-4.00) in head length, 1.27 (1.16- 1.33) in interorbital width. Length of the postorbital part of the head is slightly less than twice

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the length of the preorbital part of head (or snout length). Cleft of mouth wide, extending to below middle of the orbit. Upper jaw conspicuously longer than the lower jaw which is provided with a poorly developed symphyseal knob. Barbels 2 pairs, anterior or rostral pair slightly longer than the posterior or maxillary pair. Both pairs of barbels shorter than eye diameter. Least depth of caudal peduncle 1.78 (1.66-1.85) in its length.

Scales: Lateral line abruptly descending, with 38-39 scales. Lateral transverse scales 12 from the pelvic origin to the dorsum 3 1/2 rows of scales between the lateral line and base of pelvic fin. 14-16 predorsal scales and 12-14 circumpeduncular scales.

Fins: D.ii, 7; A.iii, 11-12; P.i, 12; V.i,8; C.19. Dorsal fin originates exactly midway between the posterior margin of the orbit and base of caudal fin. Pelvic fin commences on a vertical considerably anterior to the dorsal fin. Anal fin originates on a vertical posterior to the dorsal fin. Length of the longest dorsal ray 5.76 (5.55-6.11), length of the longest anal ray 6.62 (6.25-6.88), pectoral length 5.21 (5.00-5.50) and pelvic length 7.42 (7.14-7.85) in standard length. Caudal fin forked with unequal lobes, lower lobe longer than upper.

Colour in alcohol: Dorsal surface light grey

and sides silvery. A light darkish longitudinal band extending from behind the head to the base of caudal fin. All the fins are hyaline.

Distribution and Habitat : This species is known only from the River Gumti at Udaypur subdivision, South Tripura district, North-eastern India (23°45' N, 91°30' E). The holotype and paratypes were collected with cast net from clear, mud-bottomed pools with moderate flow.

Etymology: For Dr. J.S. Nelson of the University of Alberta, Alberta, Canada in recognition of his valuable contribution to the study of the fishes of the world.

DISCUSSION

Barilius nelsoni is similar to *Barilius evezardi* Day and *Barilius radiolatus* Gunther in lacking the vertical bars on the body and in almost same head length and body depth. It is considered to be most closely related to these species. The new species can be easily separated from the former species in the position of the dorsal fin which commences midway between the hind margin of the orbit and base of caudal fin (vs. hind edge of the orbit and posterior end of the caudal fin), barbels present (vs. absent), lower jaw conspicuously shorter than

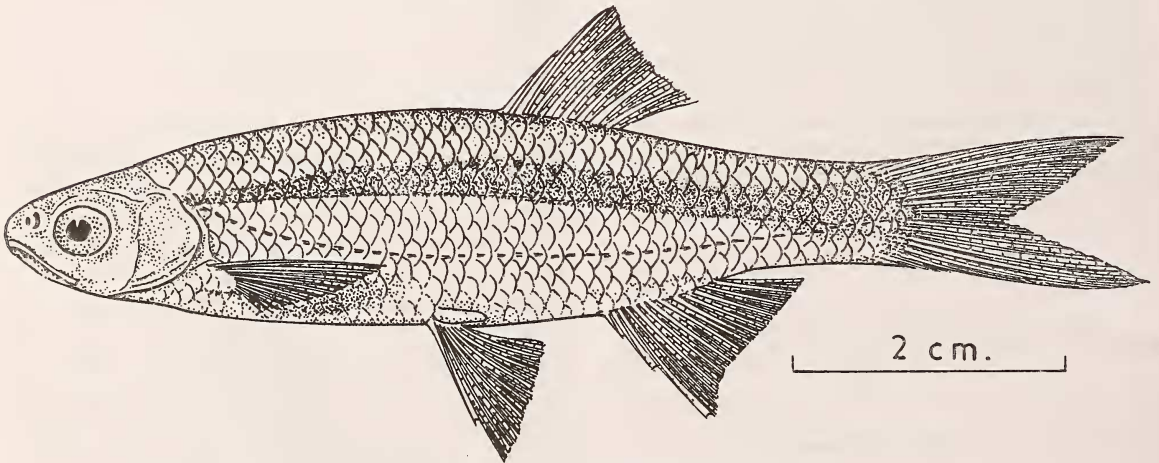


Fig. 1. Lateral view of holotype of *Barilius nelsoni* sp. nov.

the upper jaw (vs. lower jaw slightly longer), maxilla extending below up to middle of the orbit (vs. anterior margin of the orbit), caudal fin with upper lobe shorter (vs. upper lobe longer). Further, *B. nelsoni* is provided with a darkish longitudinal lateral band extending from behind the head to the base of caudal fin which is lacking in *B. evezardi*. The new species can also be separated from *B. radiolatus* by the fewer number of lateral line scales 38-39 (vs. 56-62), predorsal scales 14-16 (vs. 24-25) and circum-peduncular scales 12-14 (vs. 18).

The presence of symphysial knob on the lower jaw and general appearance of this species with the absence of the characteristic vertical bars so common in the genus *Barilius*, gives the species a close resemblance to the fishes of the genus *Rasbora* Bleeker, from which however it may be easily identified by the number of anal fin rays; while its distinctly rounded (not sharp edged) abdomen shows it

does not belong to *Chela* Hamilton.

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A NEW FROG OF THE GENUS *PHILAUTUS* GISTEL, FROM THE PROPOSED NAMDAPHA BIOSPHERE RESERVE, ARUNACHAL PRADESH, NORTHEAST INDIA¹

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 (With a text-figure)

During the study of a large collection from the proposed Namdapha Biosphere Reserve, we came across a new species of frog of the genus *Philautus* Gistel (Family Rhacophoridae), which is described here.

Philautus shyamrupus sp. nov. (Fig. 1)

Colour varying from grey to brown on the dorsum. A dorsolateral white band on either side, ex-

tending from posterior region of eyes and ending posteriorly near the vent. Limbs dark brown to grey. Eyes blackish; ventral surface dirty white. A dark, narrow line originating from the interorbital region, extends posteriorly to the hindmost part of the body.

Skin smooth above. Chest and belly smooth. Ventral surface almost smooth.

Head as long as broad; snout obtusely pointed, slightly longer than eyes; canthus rostralis distinct; nostrils closer to tip of snout than eyes; internarial distance less than interorbital space which is equal to diameter of eyes; tympanum distinct, two-third of diameter of eyes;

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